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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/907,021	07/17/2001	George L. Markley	DKT 00040	6078

7590 08/08/2002

BorgWarner Inc.
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Troy, MI 48007-5060

EXAMINER

MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 08/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/907,021

Applicant(s)

MARKLEY ET AL.

Examiner

Timothy P McAnulty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Drawings

1. Figures 1,2, and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The abstract of the disclosure is objected to because it contains the phrase "is disclosed" in lines 2-3 of the abstract; such language should be avoided. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 is unclear regarding the structural location of the interleaved drive link as claimed in lines 21-22 of claim 6.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Braddock.

Braddock discloses in figures 1-4, a transmission chain engaging a sprocket, said transmission chain comprising a first series of links having drive links defining teeth on one side of said drive links and guide links and a second series of links having drive links defining teeth on one side of said drive links and guide links wherein the first series and the second series are interleaved along a chain direction so that links of the second series are positioned between and extending adjacent to links of the first series. Braddock further discloses the links of the first series and the links of the second series pivotally connected to one another via pins extending through apertures in each link.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luce in view of Belcher.

Regarding claims 1-9, Luce discloses in figures 1 and 2, a sprocket and power transmission chain comprising a sprocket engaging a transmission chain, said sprocket having a plurality of series of teeth 3,4 wherein teeth of axially adjacent series are circumferentially offset from each other and a transmission chain having a first series of links having drive links and guide links and a second series of links having drive links and guide links wherein the first series

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and the second series are interleaved along a chain direction so that links of the second series are positioned between and extending adjacent to links of the first series. Luce further discloses the links of the first series and the links of the second series pivotally connected to one another via pins extending through apertures in each link but does not disclose said drive links defining teeth on a first side of said drive links and drive flanks on a second side opposite of said first side of said drive links. However, Belcher et al. teaches in figures 1-4, a transmission chain comprising drive links wherein each drive link defines teeth 5 on a first side of said drive link and includes two drive flanks (not numbered) on a second side opposite said first side of drive link.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Luce in view of the teachings of Belcher et al. to include teeth on a first side of the drive links to more securely engage the transmission chain to the sprocket and to include drive flanks on the drive links on a side opposite a side defining teeth so as to enable the transmission chain to drive sprockets with both a first toothed side of the chain and a second drive flanked side of the chain.

Regarding claim 10, Luce discloses the basic apparatus as previously cited but does not disclose the drive links having drive flanks on a first side of said drive link and on a second side opposite said first side of said drive link. However, Belcher et al. further discloses links 3,4 having drive flanks on both a first and second side thereof. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the apparatus of Luce in view of the teachings of Belcher et al. to include drive links having drive flanks on both a first side and a second side of said drive links to eliminate the need to manufacture two different types of links.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patent documents are cited to further show the state of the art regarding transmission chains in general:

U.S. patent No. 6,267,701 B1 to Mott

U.S. Patent No. 4,509,937 to Ledvina et al.

U.S. Patent No. 6,171,209 B1 to Matsuda

U.S. Patent No. 1,269,656 to Stewart


U.S. Patent No. 5,989,140 to Ichikawa et al.

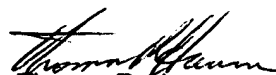
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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

tpm 
August 6, 2002


Thomas R. Hannon
Primary Examiner